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NEWSLETTER OF THE LONDON CHAPTER,
ONTARIO ARCHAEOLOGICAL SOCIETY
55 Centre Street, London, Ontario N6J 1T4

LONDON CHAPTER
OAS

"April", 1990
90-4

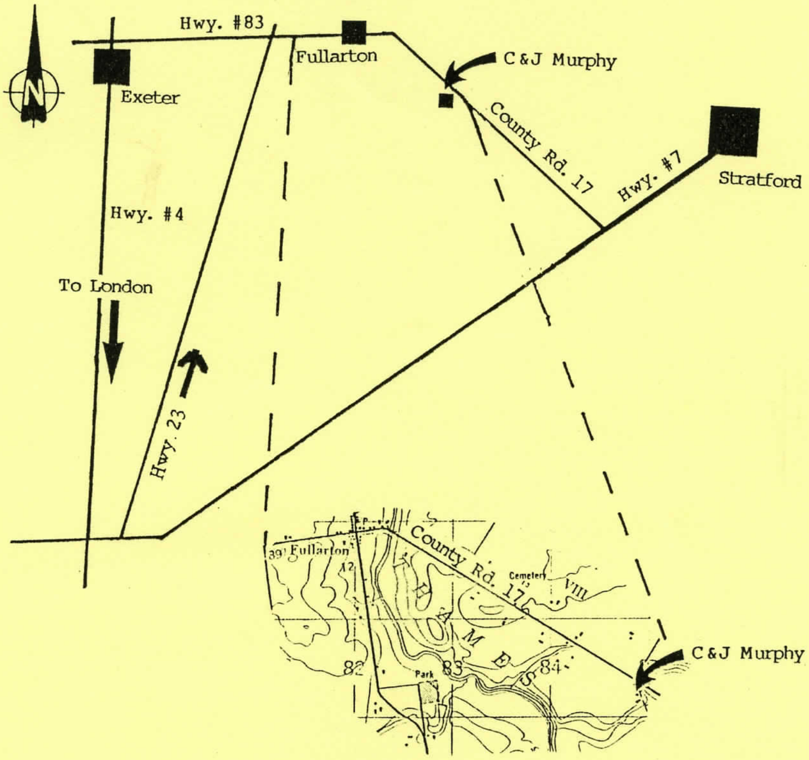
The Middle Woodland Boersma Site along the Thames River, Delaware

Jim Wilson, McMaster University

A reminder to members that the first fall Speaker Night is scheduled for Thursday September 13th, 8 PM, at the Museum of Indian Archaeology.

London Chapter Summer Picnic

Saturday, August 18th, 2 P.M., Fullarton (see inside for details)



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ANNUAL RATES

Individual	$15.00
Family	$18.00
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EXECUTIVE REPORT

It is with deepest regrets that the Executive must report that London Chapter Treasurer, Mr. George Connoy, passed away on Monday, July 30th, after being hospitalized for some days related to complications arising from cancer. Funeral services were well attended by various Chapter members. George has been an integral part of the Chapter since its inception, and will be sorely missed. The Executive will be extending sympathy to George's family, as well as planning some activities in honour of George. Any suggestions would be greatly appreciated. In the meanwhile, for those who may not have known George that well, the Executive has put together the following memorial:

George is likely best known to London Chapter members as our first and only Treasurer, his term extending from 1977 to now, and was one of the founding members of this Chapter. In many ways George personified what the London Chapter has been all about, and much of the success we achieved over the last 13 years was due to George's input. However, George was very active in archaeology well before the Chapter began, working mostly to document the sites of Elgin County, along with parts of south Middlesex and southwest Haldimand-Norfolk. Although his real passion was Paleo-Indian and and Early Archaic archaeology, George always was careful to fully document everything he found on survey, and his reports still stand as the major contribution to Elgin County archaeology. George also was an important contact to many of the artifact collectors in Elgin County, documenting collections and encouraging individuals to record their finds. George was also quite active as a volunteer, serving as an ACOP officer for the southwest archaeological office of the Provincial ministry, as well as someone who could always be relied on to help out on any excavation. For instance, George put in almost as many hours at the London Chapter's excavation of the Van Bemmel site as anyone else out there. George was also a regular on field trips to other parts of the province or down to the states, and was particularly fond of trips which brought him near smoked fish, duty free Canadian Club, or new experiences. Beyond being an enthusiastic fan of archaeology, George was also a good friend to many of the archaeologists who have worked in southwestern Ontario. George always was able to enjoy life to the fullest, and encouraged those around him to do so too. If heaven can be defined as a place abounding with interesting archaeological sites, serves only the best scotch and finest smoked fish, and has several good places to sit and fish away the afternoon, can anyone doubt that George is there? Goodbye George, you'll be missed, but you'll also be remembered.

George J. Connoy
1921-1990
Friend and Archaeologist

While a cliche at times like this, it is true that the world continues to plough ahead. The Executive reports that Lorne Sheridan has had to step down from his role as Chapter secretary, due to personal workload. To compensate for these changes, Wayne Hagerty will serve as Chapter Treasurer for the remainder of the year, while Tom Arnold has agreed to fill the position of Director. However, the position of secretary still remains vacant. Any Chapter member willing to serve as secretary for the remainder of the year is encouraged to contact Megan, Pat, Wayne or Tom.

The Executive is pleased to announce that the Ontario Heritage Foundation, Archaeology Committee, recently approved our application of $8,000 for production of the Prehistory of Southern Ontario volume. This money will ensure us of producing a sizeable run of the volume to meet the anticipated demand in the first year. On the home front, Publication Series editor Neal Ferris reported at the last Executive meeting that the first six chapters of the volume should be ready to go to the printer by the end of August. While many matters still require attention before the whole thing can be finished, Neal and volume editor Chris Ellis are now, albeit cautiously, willing to predict that the volume will be released by December of this year. Once the entire volume is at the printers, the Chapter will begin to accept advance orders for it. So, hold on to your hats folks, we're almost there.

SOCIAL REPORT

As reported in the last issue of KEWA, Saturday August 18th is the annual London Chapter summer picnic. Once again the event will be held at the farm of Carl Murphy and Judith Stewart, near Fullerton (see map). People are welcome to come after 2 PM. As usual, people attending the picnic are asked to bring a salad, dessert or other item, along with your own meat to cook and beverage to drink. Sweet corn, condiments, napkins, paper plates, etc. will be provided by the Chapter. To find out what to bring, please contact either Wayne Hagerty at 438-7130, or Judith Stewart at 1-229-8137.

Hunter's Point Excavation Project

Situated on a beach by the sparkling blue waters of Georgian Bay on the Bruce Peninsula, this French era Odawa camp is being excavated under the direction of James Molnar. Jim has only two years to salvage information from this important site prior to the development of a cottage subdivision. He needs your help! Come out and participate on the excavation for a day or the whole week of August 13 to 17. Volunteers should be prepared to camp (own tent), although cooking and washroom facilities are available. Some food and all field equipment will also be provided. There is no telephone at the camp, so written inquiries should be addressed to Jim at Box 203, Lion's Head, Ontario N0H 1W0, or additional information can be obtained from Bill Fox at 965-2186 (days).

EDITOR'S NOTE

The following "last minute" submission was provided yet again by staff of the southwest Ministry of Transportation archaeological field crew on yet another site examined for the proposed Highway 403 corridor east of Brantford. This was the only way we could fill an issue to get it out in time to advertise the picnic. Surely more than the Highways crew for southwestern Ontario is generating reports? KEWA needs you! Remember, this is the "April" issue, if you want to see the fall issues, please help fill the pages of our newsletter...please!

Archaeological Investigations of the Stratford Knoll Site (AhHa-59)

Carl Murphy and Wayne Hagerty

INTRODUCTION

The Stratford Knoll site was identified in 1988 during the archaeological survey of the proposed Highway 403 right-of-way (R.O.W.), Ancaster to Brantford (Lennox and Murphy 1989). The site is situated on a small, brush covered knoll on the north half of the R.O.W., overlooking a narrow floodplain of one of the many tributaries of Big Creek (Figure 1).

A single line of test pits, spaced at five meter intervals, recovered chipping debitage and a cordmarked body sherd. The small size of the knoll, shallow topsoil profiles, and indistinct topsoil-subsoil interface suggested that the site area had not recently been ploughed, if at all. Consequently, the frequency of cultural material in the shovel test pits and the site's proximity to the historic Neutral Iroquoian Stratford village to the north necessitated further examination of the Stratford Knoll location. Subsequent excavations totalled 260 one meter squares, resulting in the recovery of 4542 ceramic and lithic artifacts. Based on diagnostic lithic tools and ceramic vessels, at least one probable Archaic and three mixed Woodland components are present on the site.

A five meter grid was established over the top of the knoll, oriented according to magnetic north (Figure 2). Stratford Knoll was excavated in contiguous one meter squares with the sandy loam topsoil hand shovelled through 6.0 mm mesh screens. Square excavations were directed by the frequencies of artifacts recovered, which ultimately encompassed much of the flat surface of the knoll. Screened shovel tests excavated along the slopes and base on all sides of the knoll failed to identify additional erosional or midden deposits.

In all but one instance, artifact concentrations were found in the topsoil of the site. No dense concentrations of fire cracked rock were noted, which might have suggested the presence of surface hearths or cooking areas. The exception was a buried band of topsoil in square 3S1E, representing what appeared to be a cultural horizon overlain with topsoil and a narrow band of mixed topsoil and subsoil. The overburden may have derived from a series of nearby groundhog disturbances or possibly a tree fall. A 46 litre flotation sample was collected and contained Middle Woodland pottery and deer and dog bone. Charred wood from this deposit included white elm (3.62 gm), sugar maple (2.19 gm.), and white pine (0.94 gm.). The presence of three distinct species of charred wood further suggests that the buried horizon was the remains of a shallow, diffuse cultural feature or an incidentally buried refuse deposit.

The charred wood distribution from the feature also conforms to historic vegetation records for the site area which report maple-beech as the dominant forest association south of Molson Road, while a white pine stand was noted to the north (Finlay 1978). Unfortunately, charred seeds or nuts were absent from the sample which may have aided seasonal implications for the component represented.

ARTIFACT ANALYSIS

Due to the multicomponent assemblage from this small site, only diagnostic materials have been analyzed and described in detail. Distributional patterns indicate that certain classes of material such as lithic debitage could not be associated with specific components, and detailed flake descriptions would be of little analytical value.

Lithics

A total of 3300 lithic artifacts were recovered from the excavations at Stratford Knoll. The lithic material was sorted into tools and debitage based on the one metre square excavation units.

The majority of lithic material recovered is represented by debitage generated as a result of lithic reduction (f=3227, total weight 1666 grams). The mean weight of the debitage is 0.5 grams, indicating that the majority of material recovered was generated through biface thinning, finishing or resharpening.

The predominant material type is Onondaga chert, although Haldimand and Kettle Point cherts were also recovered. The frequency of Haldimand debitage was 43 pieces, while Kettle Point was represented by 39 flakes. The overall lithic debitage frequency on the site is low considering the size of the excavation, and only a few metre squares produced the majority of the lithic debitage recovered. This would seem to confirm the suggestion that the site was not subject to considerable post-occupational disturbances. This would also seem to suggest that the occupations on the site were brief and that little or no re-deposition of material was taking place.

The observation that a few meters of excavation produced the majority of flakes and their spatial distribution across the site both suggest that several discrete lithic reduction activity areas are present. Unfortunately, these discrete areas are unassignable to a chronological association either through the lack of diagnostics in the immediate area or the association of

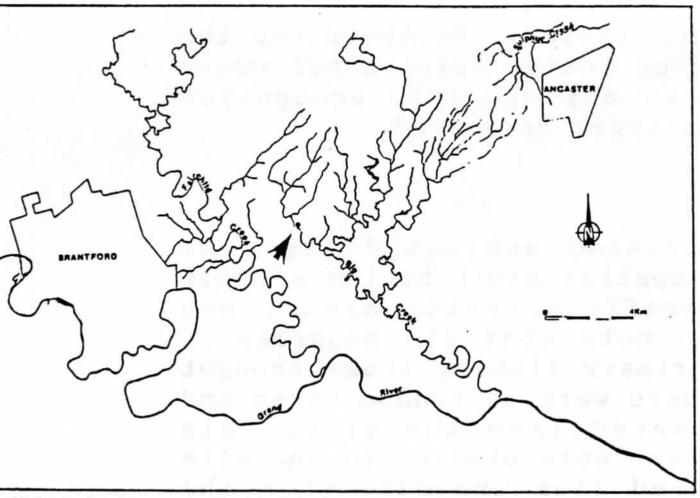


Figure 1 Location of the Stratford Knoll Site

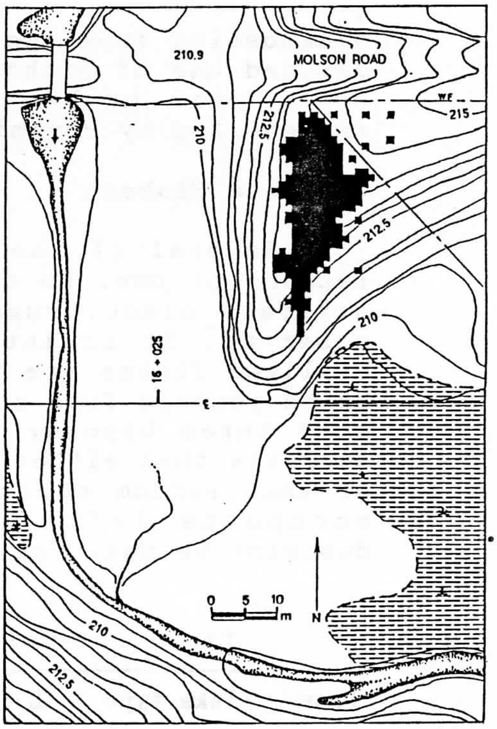


Figure 2 Stratford Knoll Topography and Limits of Excavation

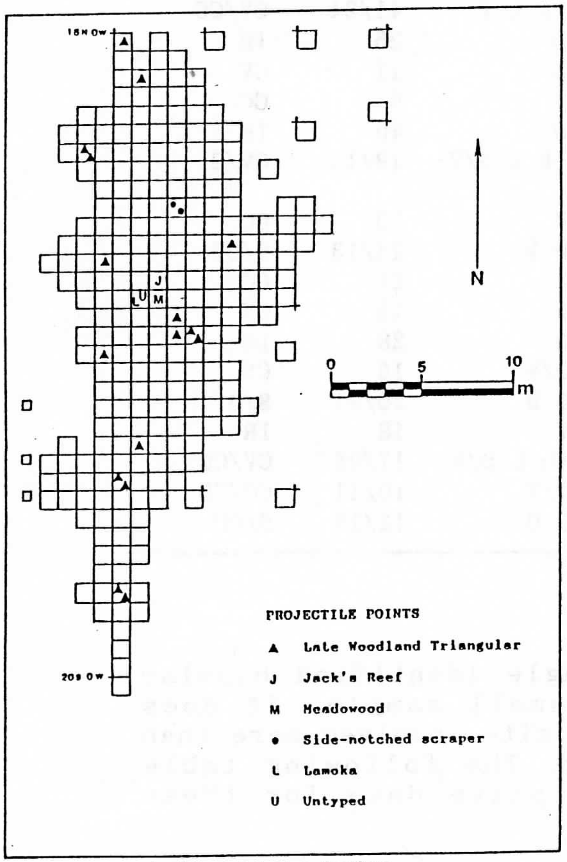


Figure 3 Projectile Point Distributions

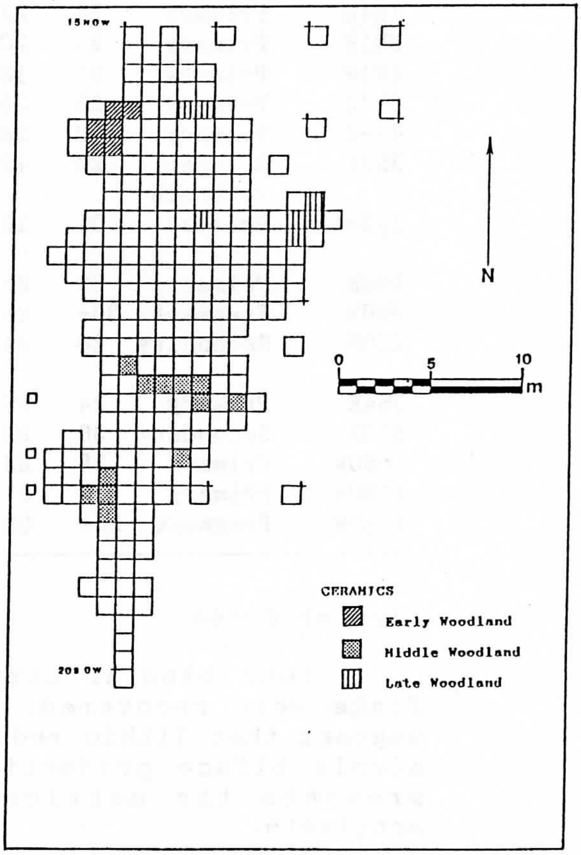


Figure 4 Ceramic Vessel Distributions

diagnostics from two or more time periods. Furthermore, the limited use of either Haldimand or Kettle Point chert would not appear to be assignable to any specific occupation represented by ceramics or point types recovered.

Utilized Flakes

Several of the flakes recovered exhibited signs of retouch or use. No discernible spatial distribution of this artifact class, suggesting specific activity areas, was observed. It is interesting to note that the majority of utilized flakes are formed on primary flakes, those thought to be removed from cores, yet there were no random cores and only three bipolar cores recovered from the site. This suggests that either primary flakes were brought to the site or that random cores were removed from the site when the occupants left. Table 1 presents the metrical and descriptive data for the utilized flakes recovered.

Table 1: Utilized Flake Descriptions (in mm)

Prov	flake type	L	W	Th	Utilized edge		
					Loc.	length	shape
12N2E	Primary	40	31	10	L&D V	29/27	S/CC/CV
10N3E	Primary	36	27	11	L D	24	CC
10N3E	Primary	29	26	5	both L D	14/19	CC/CV
7N4E	Primary	70	22	11	both L V	41/24	CV/CC
6N1W	Primary	23	20	5	L B	25	IR
6N1W	Primary	27	18	4	L D	11	CV
6N4E	Primary	25	35	8	L V	9	CC
4N9E	Primary	40	26	13	L D	40	IR
3N5E	Scraper re-touch	26	13	7	both L D/V	18/13	CV/S
1N2W	Primary	31	18	9	L V	19	CC
					L&D V	14/13	S/CV
1N8E	Primary	36	21	5	L D	25	CC
0N0W	Fragment	30+	28	7	L D	15	CV
2S0W	Secondary	28	14	3	L D	28	IR
					L D/V	16	CV
3S4E	Primary	24	16	6	L&D D	20/21	S/S
8S3E	Secondary	36	20	4	L V	18	IR
10S0W	Primary	25	23	4	both L D/V	17/26	CV/CC
14S0W	Primary	24	21	4	L D/V	10/11	CC/CC
17S0W	Fragment	26+	26	2	D/L D	12/16	S/CC

Bipolar cores

Four bipolar cores and a single identified bipolar flake were recovered. Although a small sample, it does suggest that lithic reduction on the site involved more than simply biface production or repair. The following table presents the metrical and descriptive data for these artifacts.

Table 2: Bipolar Core Descriptions

Prov.	type	length	width	thickness
4N8E	point-area	26.4	20.6	19
4N4E	point-point	26.8	12	9
4N0E	point-area	27	16	12.4
3N4E	bipolar flake	20.7	18	6

Triangular Points

Fourteen complete, or nearly complete triangular points were recovered from the site (Table 3; Plate 1, a-n). Thirteen are produced on Onondaga chert and one is of a light bluish grey chert, possibly Haldimand (cf. Parker 1986). All of the triangular points likely pertain to the Late Woodland period as represented by some of the ceramics recovered. The following table presents the descriptive data for these points.

Table 3: Triangular Point Descriptions

Prov.	Max. Lgth	Max. Wdth	Th.	Bsl. Form	Bld. Form	Cross Sct.	Comments/Other
15N0W	25.5	18.2	3.9	C C	C C	P C	
13N1E	30.9	15.5+	4	C V	---	P C	missing corner
9N2W	32.4	16.2	3.4	C C	C V	B P	
9N2W	36.8	18.8	5.3	C C	C V	P C	tip
4N6E	26.3	18.0	3.7	C C	C C	P C	
0N3E	29.0	16+	3	C C	C V	B P	corner missing
1S4E	20+	12.3	4.4	C C	S	P C	Haldimand Chert
1S4E	34.9	18.5	3.4	C C	C V	B P	
2S1W	31.6	15.9	3.9	C C	C V	B P	pentagonal
7S1E	22.1	18.8	5.3	C C	C V	P C	
9S0W	22.4	16.0	4.1	C C	C V	P C	one lateral edge missing
9S0W	24.1	10.4+	3.5	---	C V	B P	corner missing
15S0W	36.7	16.6	4.1	C C	C V	B P	
15S0W	34.7	17.5	4.2	C C	C V	P C	

Non-triangular Points

Four non-triangular points were recovered from the excavations, all within a relatively small area near the middle of the site. Although these points are spatially associated, a range of different shapes are present. The spatial association led to the consideration that they may be chronologically related. An examination of general point typologies (e.g. Ritchie 1961, Granger 1978, Fitting 1970) was inconclusive, however, and the non-triangular points may

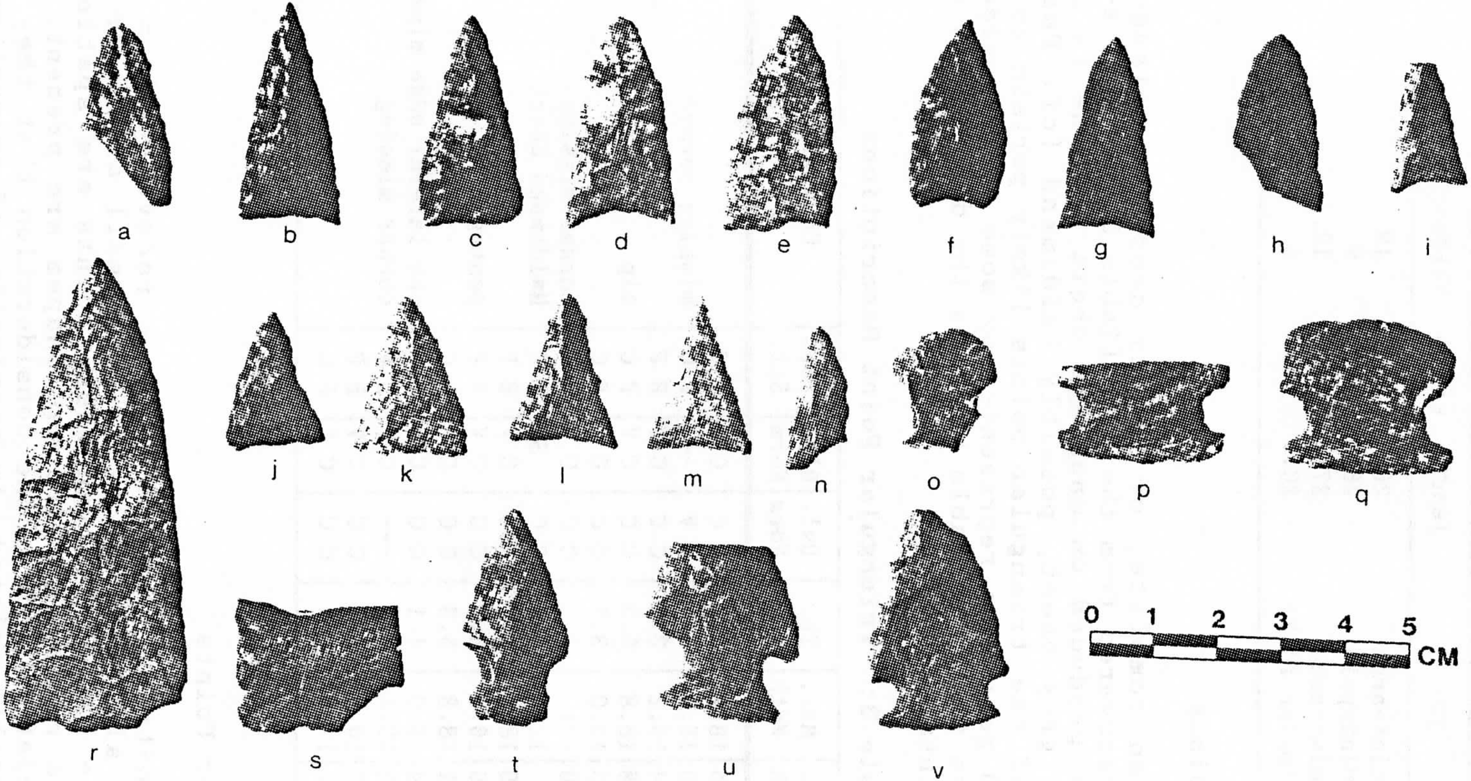


Plate 1

a-n triangular points o-q scrapers formed on point bases
r,s Meadowood point fragments t expanding stemmed point
u Jack's Reef corner-notched point v un-typed corner-notched point

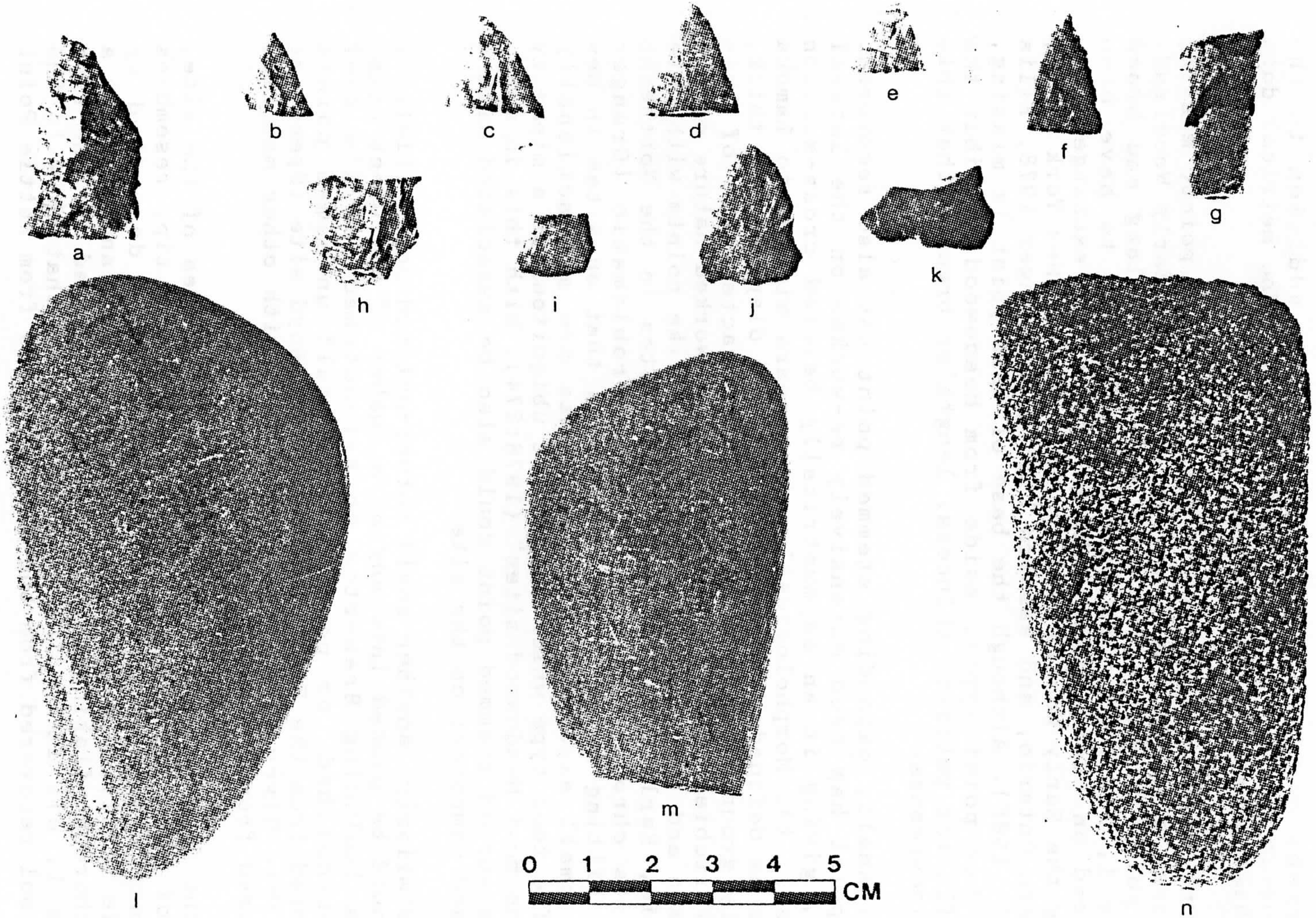


Plate 2

a point preform b-k point and biface fragments g pipe stem
l,m hammerstones n adze

represent one or more components in addition to the diagnostic ceramic assemblage on the site. The metrical data for these points is provided in Table 4.

One example appears to be a Meadowood point, missing the lower stem and base, and dating to the Early Woodland. This point is extremely well made, thin, long and broad (Plate 1, r). Meadowood points are thought to have been produced on cache blades which were common exchange items during the Early Woodland throughout western New York State, southern Ontario, and eastern Michigan (Granger 1978, Ellis et. al. 1988). Although the base of this point is missing, few other point types, aside from Meadowood, exhibit the fine flaking pattern, thinness, length or breadth that this point possesses.

A small, expanding stemmed point was also recovered. This point has been extensively re-worked on the lateral edges, giving it an asymmetrically beveled cross-section (Plate 1, t). Morphologically, it appears similar to Lamoka points as defined by Ritchie (1961), and displays the thick, lightly ground and unfinished base characteristic of this type (Ritchie 1969:50). However, the re-worked nature of the specimen and the association of Lamoka-like points with Late Archaic, Early and Middle Woodland sites in the Northeast make its chronological association problematic (Granger 1978, Fitting 1972). Granger suggests that on sites in New York, small expanding stemmed points are a functionally specific tool type which is "almost ubiquitous as a minority type on most Meadowood sites" (1978:274). With this in mind, the re-worked stemmed point could also be associated with a Woodland component on the site.

Similarly, another small corner-notched point (Plate 1, v), could be placed into any of a number of different point styles including Brewerton corner-notched, Jack's Reef corner-notched, or possibly the small un-named points recovered from the Early Woodland Bruce Boyd site (Spence et al 1978). Given this, its association with other material recovered from the site is uncertain.

The fourth point recovered from this area of the site, made of Kettle point chert and missing the tip, resembles the Jack's Reef corner-notched point type described by Ritchie (1961), although it is somewhat thick and displays a more thorough flaking pattern than that defined for the type (Plate 1, u). It is interesting to note that this is the only tool recovered from the site produced from Kettle Point chert.

Table 4: Non-triangular Point Descriptions

Prov.	Max. Lgth	Bld. Lgth	Stem Lgth	Max. Wdth	Bsl Wdth	Th.	Ntch Opn	Shld Form	Stem Form	Bsl Form	Bld. Form	Cross Sct.	Comments/Other
2N2E	29.5+	19.2	11.6	25.9	20.7	5.7	7.6	B	EX	CV	CV	CT	corner-notched point on Kettle Point chert
1N1E	35.3	22.8	12.5	17.7	13.0	7.6	9.0	R	EX	CV	S	BT	expanding stemmed asymmetrically beveled
1N1E	36.4	28.0	8.4	23.1	20.0	6.3	5.5	B	EX	CV	CV	BC	corner-notched point
1N2E	76.6+	76.6	--	29.4	--	5.8	--	--	--	--	CV	--	thin, well made, missing base

Bifaces

Twenty-seven bifaces were recovered from the excavations. Twelve of these appear to be fragments of finished points which were either broken in use or in the final stages of manufacture. The remaining 14 biface fragments and a single point preform suggest that earlier stages of biface manufacture are also represented at Stratford Knoll. This would seem to indicate a fairly intensive manufacturing industry which is generally not supported by the debitage frequency recovered from the site. It is likely that a number of these biface fragments represent blanks or preforms which were reduced at the site into points (Lennox 1986), rather than points produced from cores. This is further substantiated by the virtual lack of cores recovered from the site.

Scrapers

Three scrapers were recovered from the site, all formed on the distal end of broken point bases (Table 5). Two of these scrapers, recovered from the same square, were produced on side-notched point bases (Plate 1, p, q). One has been extensively bifacially retouched on the bit while the other displays only marginal nibbling on the distal broken edge. The latter can only tentatively be placed into a scraper classification, although its association with the extensively modified scraper on a virtually identical point base, slight retouch on the distal end of the point base, and indications of some polish on the same edge lead to the conclusion that this example was also used as a scraper.

The point bases on which these two specimens were made were relatively broad, side-notched, and somewhat thick. In general outline these bases could fit into a number of different point types including Brewerton side-notched, Meadowood, or some Middle Woodland Saugeen-like forms. Although somewhat thick for Meadowood point bases they fall within the upper ranges reported by other investigators of

Early Woodland Meadowood sites in the Northeast (Ellis et. al. 1988, Granger 1978).

The other scraper from Stratford Knoll was produced on the distal end of an expanding stemmed point base. This scraper was recovered from 1N2E, the same area of excavation where four non-triangular points were recovered (Plate 1, o). The bit of this scraper has been bifacially retouched and one corner of the base has been broken off.

Table 5: Scraper Descriptions

Prov.	Max. Lgth	Bld. Lgth	Stem Lgth	Max. Wdth	Bsl Wdth	Th.	Ntch Opn	Shld Form	Stem Form	Bsl Form	Bld. Form	Cross Sct.	Comments/Other
6N3E	25.2+	12.3+	12.9	28.0	27.1	7.6	7.4	R	EX	CV	--	--	side-notched base similar to re-worked scraper from same squa
6N3E	25.2+	14.5+	10.7	28.1	27.0	8.1	8.1	R	EX	CV	--	--	side-notched base re-worked int bifacial end scraper-
1N2E	21.1+	11.6+	9.5	17.6	13.0+	6.0	10.5	R	EX	CV	--	--	expand-stemmed point re-worked into scraper

Ground and Rough Stone

The ground and rough stone assemblage from the site is quite small, consisting of a single ground stone adze, a possible adze or celt preform and two hammerstones. Although a complex ground stone industry is common for some of the time periods represented on the site (particularly the Early Woodland), the small assemblage from Stratford Knoll is likely the result of short term occupations.

The adze recovered is formed on porous granite and measures 101 x 52 x 23 mm in length, width, and thickness. The bit has a blunt, chipped working edge while the poll is rounded and does not display evidence of battering or hafting preparation (Plate 2, n). The adze is plano-convex in cross section.

The celt or adze preform does not exhibit any obvious signs of pecking or grinding although it generally conforms to the size and shape of the adze described above.

Two limestone hammerstones were recovered from the excavations. One example is complete and measures 100 x 57 x 14 mm in length, width, and thickness and exhibits signs of pecking on one of its three corners (Plate 2, l). The other hammerstone is broken, measures 73+ x 45 x 14 mm, and also displays evidence of pecking on one of its corners (Plate 2, m). The lateral location of use wear on these hammerstones suggets that they are hard hammer percussion tools used for lithic reduction.

Ceramics

Portions of at least four ceramic vessels were recovered from Stratford Knoll and these represent three or more temporal periods. Unlike diagnostic lithic materials from the site, each vessel appears to have been deposited in a discrete concentration, that is, the ceramics in one square show similar characteristics to ceramics in adjacent squares (Figure 4). Much of the sample, especially from the north end of the site, is highly fragmented.

Early Woodland

A poorly preserved, interior-exterior cordmarked vessel was recovered in the northwestern corner of the area excavated. Several better preserved sherds show coarse cordmarking on both surfaces, and the frequent coil breaks are characteristic of Early Woodland Vinette 1 ceramics in Ontario (Spence and Fox 1986:15-31). No identifiable rim or neck sherds were found, and most fragments of this pot are unanalyzable, angular chunks of reddish-brown fired and tempered clay. A total of 25 measureable sherds range between 10.0 mm and 13.8 mm in thickness, with a mean of 11.4 mm. Sherd temper is a granitic material, well mixed, abundant, and usually less than 3.0 mm in size. Unfortunately, cord orientation, twists or cord sizes are not observable on any of the examples recovered.

This vessel may be associated with the distinctive Meadowood bifaces from the site, suggesting a date for this component between 900-400 B.C. (Spence et al. n.d.:128). Meadowood materials are widespread across southern Ontario, and there appears to be little variation in method of pottery manufacture or decoration until the later stages of the complex (Spence and Fox 1986:30). A mean vessel thickness of 11.2 mm from a large sample at the Bruce Boyd site near Long Point (Spence and Fox 1986:31), compares closely to the Stratford Knoll example, and supports our cultural and temporal placement for this component.

Middle Woodland

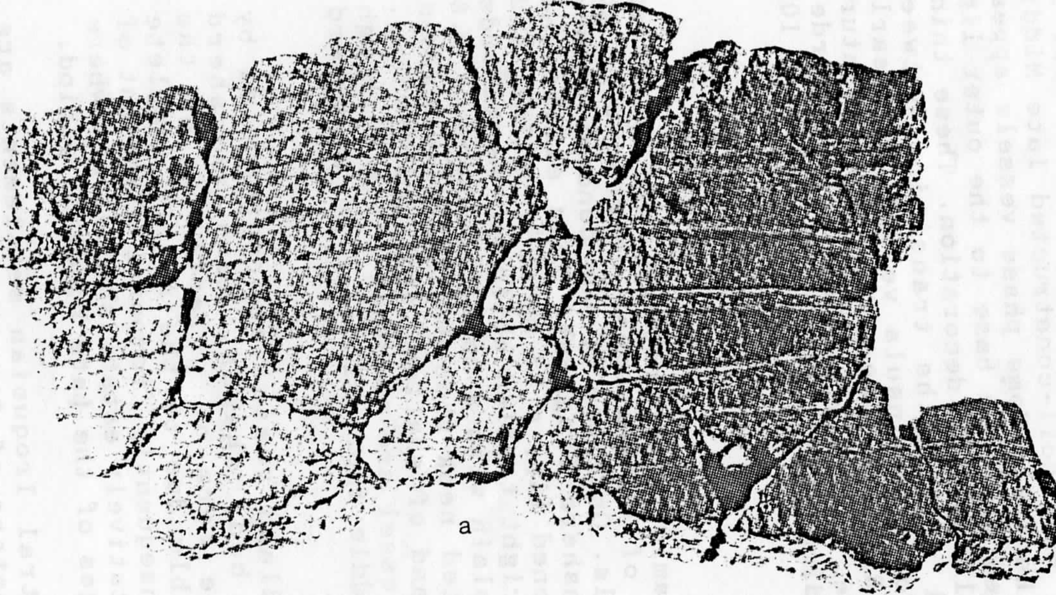
The Middle Woodland ceramic assemblage appears to consist of a single, well made, coil constructed vessel scattered within two areas of the southern half of the site excavation. This vessel is large, with an estimated orifice diameter between 250 and 300 mm. In profile, both edges of the flattened lip are at right angles (squared) to the interior and collarless exterior rim. The neck is slightly constricted, merging gradually at the neck-shoulder junction. The basal form of this vessel is unknown. The rim interior is not decorated and the interior surface has been smoothed over, but remains rough and irregular.

The lip surface ranges from 6.5 to 9.0 mm in width, with a mean of 8.1 mm, and is transversely impressed with a corded stamp. This stamp is about 8.5 mm wide and from two to three cords are visible on each individual impression. Stamps are placed about 5 mm apart which gives the lip edge a slightly scalloped appearance. A single low, rounded castellation is present on the largest reconstructed rim segment (Plate 3, a).

The vessel exterior appears to be vertically cordmarked from the lip edge to low on the body, perhaps completely to the base. The cordmarking has been lightly smoothed but the vertical impressions remain clearly visible. Individual cordmark ridges (negative impressions from the corded paddle tool) are about 2.0 mm wide, and the groves between each ridge are 1.5 mm wide. Additional decoration consists of between 7 and 9 lightly trailed horizontal bands that encircle the rim and neck. The 2.2 mm wide trailed lines are somewhat uneven and occasionally merge with other lines. The trailed decoration has been applied over a zone beginning around 15 mm below the lip edge and extending downwards about 55 mm. The trailing ends about 30 mm above the neck-shoulder junction. Mean sherd thickness is 11.0 mm in the shoulder area, while further down on the vessel body, thickness decreases to a mean of 7.9 mm.

Our temporal placement of this vessel is somewhat tentative as the general paste and thinness suggest a post A.D. 500 date; however, most larger sherds below the neck zone clearly show coil breaks which is more indicative of earlier wares. This pot does not display direct affinities to the typical Middle Woodland psuedo-scallop shell or dentate stamped Point Peninsula or Saugeen complex vessels, but does appear similar in size and profile to later Princess Point wares, although coiling was generally replaced with the paddle and anvil technique by the Princess Point stage in Ontario (Stothers 1977:58), and by the early Owasco phase in New York State (Ritchie 1969:290). The Jack's Reef corner-notched point from the site is the only recognizable lithic tool of comparable age (Ritchie 1969:244; 254), and in the absence of additional ceramic evidence and supporting radiometric data, this vessel likely falls within the A.D. 400 to A.D. 700 temporal period. This is the transitional stage between the established Middle and Late Woodland cultural complexes in southern Ontario (Spence et al.:n.d.), and in western New York State (Ritchie 1969:228-230; 254).

Comparable ceramics are not known from sites in the immediate area of Stratford Knoll, although the late Middle Woodland burials from the Port Maitland site (Ritchie 1944:181) are likely the closest geographic analogue to the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period represented by this vessel. It also shares a number of generic similarities to ceramics in the lower levels of the 11H8 site on Point Pelee in Essex County, although horizontal trailing does not appear to be a preferred decorative trait of Western Basin ceramic complexes in that area (see Keenlyside 1978: Plate XL-XLIX). To the east in New York State, however, many coil-constructed late Middle Woodland Kipp Island and Hunter's Home phase vessels appear to be vertically cordmarked from the base to the outer lip, with or without additional exterior decoration. These thin, cordmarked vessels fall within the transition between typical Middle Woodland Point Peninsula vessels and early Iroquoian Owasco types (Ritchie 1969:254). A pit feature from the Kipp Island site, containing Jack's Reef Corded vessels has produced a radiocarbon date of A.D. 630 +/- 100 (Ritchie 1969:230).

Late Woodland

Two Late Woodland ceramic concentrations were recovered in the northeastern area of excavations, representing at least two incomplete vessels. Only one of the concentrations is associated with a rimsherd fragment. This exfoliated exterior sherd has a flattened lip, a 33 mm wide collar, and is decorated with left to right trailed obliques. Necksherds in this concentration are plain with a mean thickness of 9.6 mm. The pot has a carinated neck-shoulder junction marked with a single horizontal band of shallow, oval impressions. Most bodysherds from this vessel are smoothed plain although a few show faint ribbed paddle impressions. Mean bodysherd thickness is 7.5 mm.

The second Late Woodland vessel is represented by smoothed-over cordmarked body sherds. Mean bodysherd thickness is 8.0 mm. The form or orientation of the cordmarking is not observable due to the nearly complete smoothing of the sherds. Consequently, temporal placement of this vessel can only be tentatively established at somewhere between the mid to late stages of the Late Woodland period.

Several Historic Neutral Iroquoian settlements are located within a few kilometers of Stratford Knoll, but attributing the Late Woodland ceramics to one of those occupations is hindered by the fragmentary condition of the sample. The rim decoration of the first vessel is a form of Lawson Incised (McNeish 1952:14), one of the most common late prehistoric Iroquoian vessel types in southwestern Ontario (Wright 1966:86). Once again, the smoothed over ribbed paddle body sherds are not particularly diagnostic of the historic Neutral and occur in much greater frequencies on earlier 15th and 16th century sites, while the smoothed-over cordmarked sherds may be associated with either prehistoric or historic Neutral (Wright 1966:62, 86).

Ceramic Pipe

A 28 mm segment of the mouthpiece of a fine-tempered ceramic smoking pipe was recovered from the site (Plate 2, g). It is circular, 10.0 mm in diameter with a smooth, centered bore 3.3 mm in diameter. In the absence of bowl fragments, the paste and temper suggest that this example dates to a Late Woodland component.

DISCUSSION

Three or more cultural components are evident from the material culture recovered from Stratford Knoll. The earliest identifiable occupation appears to be a brief camp, with refuse limited to a single Early Woodland vessel, a small number of Meadowood tools, and an unknown quantity of lithic debitage. The settlement-subsistence strategy for the Early Woodland stage in southwestern Ontario is very poorly understood, and much of what is known is based primarily on mortuary sites, limited test excavations, or surface collections. Spence and Fox (1986:30) suggest that Meadowood groups practiced a seasonally shifting pattern based on regional band coelescence during the spring or summer concentrating on riverine or lacustrine environments, with smaller family groups moving further inland during the colder months of the year. Others, however, including Granger (1978:264-266) and Ellis et. al. (1988), see a pattern of summer dispersal with regional bands coming together over the winter months. The majority of investigated inland components appear to be small, fall nut gathering-deer hunting camps (see Spence and Fox 1986:18-19), while large surface collections from inland sites such as Welke-Tonkonoh are interpreted as winter base camps (Ellis et al. 1988:14).

The limited information from Stratford Knoll does not help clarify this time period, and the Early Woodland assemblage appears to represent a short term encampment by a small group. Generally, prominent points of land overlooking a marsh or floodplain along a secondary interior drainage were attractive locations for short term seasonal activities undertaken by hunters and foragers. Stratford Knoll is situated 14 km overland from the mouth of Big Creek and the site is likely one of dozens of locations along similar inland tributaries in Brant County briefly inhabited during part of the annual Early Woodland seasonal round.

The Middle Woodland occupation at Stratford Knoll is represented by a single ceramic vessel and possibly a corner-notched point. This small assemblage is similar to the Early Woodland component, and both occupations may have resulted under similar circumstances. One prominent aspect of this component is the presence of a ceramic vessel type that is poorly documented in Ontario, but is known from a number of late Middle Woodland sites in adjacent New York State. Overall, there has been limited work on the later Middle Woodland sites in southwestern Ontario, and chance discoveries like the Port Maitland burials at the mouth of the Grand River have identified mortuary patterns of the period, but with no evidence of occupation areas or associated domestic patterns (see Ritchie 1944:181; 1969:237).

To the east, late Middle Woodland spring-summer settlement patterns have been identified at the Kipp Island and Hunter's Home sites in New York state (Ritchie 1969:228-266). These sites are located on major rivers or inland lakes, and the extensive occupational debris recovered appears to be the result of repeated seasonal use. The large number of hearths, storage features, burials, and associated domestic refuse associated with these sites was the result of intensive exploitation of spawning fish and other warm season resources (Ritchie 1969: 242).

Winter settlement patterns are not well known either in Ontario or New York, but it is likely that inland areas were occupied at that time of the year (Spence et al. n.d.:164). The Middle Woodland component at Stratford Knoll then probably represents a cold period camp, although the length and focus of the occupation is impossible to access. Middle Woodland winter camps may have been relatively stationary, or small family groups could have periodically moved along interior drainages over much of the season. If so, Stratford Knoll may be a typical winter occupation of that time, but information from many additional sites will be necessary to eventually outline the basic seasonal pattern.

The latest and most intensive component at Stratford Knoll is represented by portions of two Late Woodland ceramic vessels and a much broader distribution of Late Woodland triangular projectile points. Evidence of house structures, features or middens were not found, and the Late Woodland occupations appear to have been brief, perhaps similar to the nearby Alder (Hagerty and Lennox 1990) and Bruce sites (Hagerty 1990), or possibly related to activities associated with the historic Iroquoian Stratford village site, located immediately to the north of Stratford Knoll. The spacial proximity between Stratford Knoll and the latter site certainly suggests a relationship for part or all of the Late Woodland materials recovered. However, the necessary materials to link the two occupations, such as early historic European trade materials or a diagnostic ceramic sample, were not recovered.

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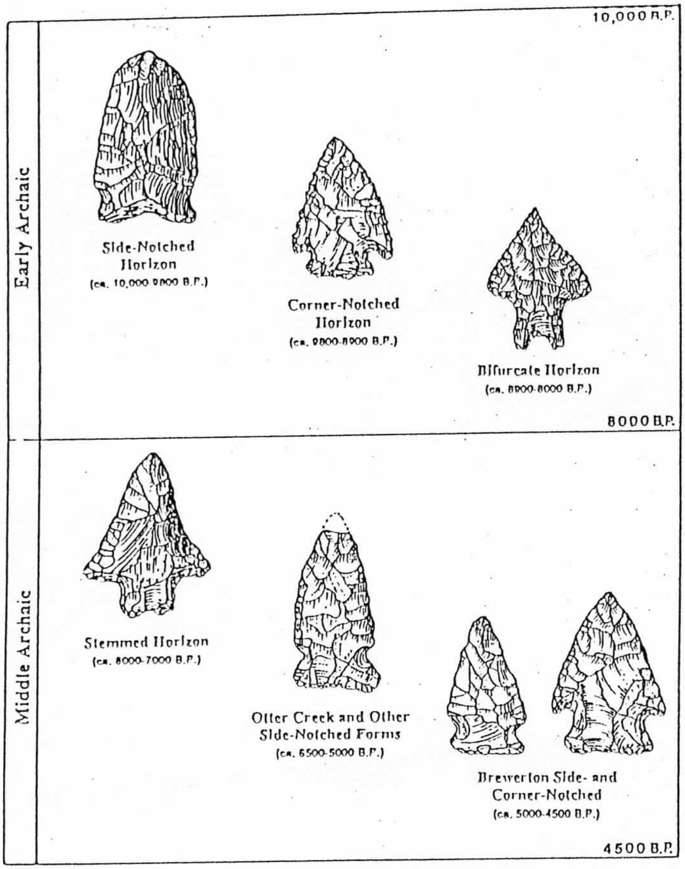

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